

Pre-Conference Program



Research & Evaluation in Online Learning

Virtual School Symposium 2010

Presenters

- **Leanna Archambault**, Arizona State University
- **Cheryl Charlton**, (IDLA)
- **Tom Clark**, TA Consulting
- **Rick Ferdig**, Kent State U. & Ferdig Technologies, LLC
- **Susan Lowes**, Columbia University
- **Liz Pape**, VHS Inc.



Agenda

1:00	Overview & Introductions
1:20	Presentation 1: Identifying Needs/Goals <i>Small groups: what do we want to know?</i>
2:20	Break
2:30	Presentation 2: Defining Outcomes <i>Small groups: measuring your success</i>
3:30	Break
3:40	Presentation 3: Integrating R & E <i>Small groups: your choice</i>
4:40	Open-ended discussion and wrapup



Pre-Conference Wiki

<http://vss2010.wikispaces.com>



To enter preconference wikispace:

- Click on "Pre-Conference Sessions"
- Click on "Evaluation & Research for K-12 Online Learning"

Click on "Presenter Materials" to see presentations

Definitions

- **What is program evaluation?**
 - Evaluation is the systematic assessment of the worth or merit of a program (Trochim, 2006*)
- **What is research?**
 - A systematic investigation designed to develop or contribute to generalizable knowledge [45 CFR.102(d)]
- Program evaluations often have a research component

* www.socialresearchmethods.net/kb/intreval.htm

Why Do Evaluation?



Developmental

- To inform program development and beta testing

Formative

- To get feedback for improving the ongoing program
- To determine progress toward stated goals and standards

Summative

- To justify the program for stakeholders
- To make a value judgment about the merit or worth of a program

Why Do Research?



Theory

- To produce generalizable knowledge that informs the field and research community
- To build theory by addressing questions derived from the existing literature

Application

- To show that the program “works” for specific populations in a controlled situation (experimental/quasi-experimental)
- To explore relationships between program features and desired outcomes (qualitative)

Presentation 1

- Identifying what we want to know
- Cheryl Charlton, IDLA
- Liz Pape, VHS Inc



Idaho Digital Learning

November 14, 2010

Dr. Cheryl D. Charlton
Chief Executive Officer



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Digital Learning**
EDUCATE. INNOVATE. ELEVATE.



*Envisioned by
Idaho District
Administrators*



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A photograph of the Idaho State Capitol building at night. The building is illuminated, with its central dome and classical columns clearly visible against a dark sky. The text is overlaid on the image.

*Adopted by **Idaho Legislature***

Title 33, Chapter 55 Idaho Code

*Providing choice,
accessibility, flexibility,
quality, and equity*



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Mission Focused

STUDENTS...

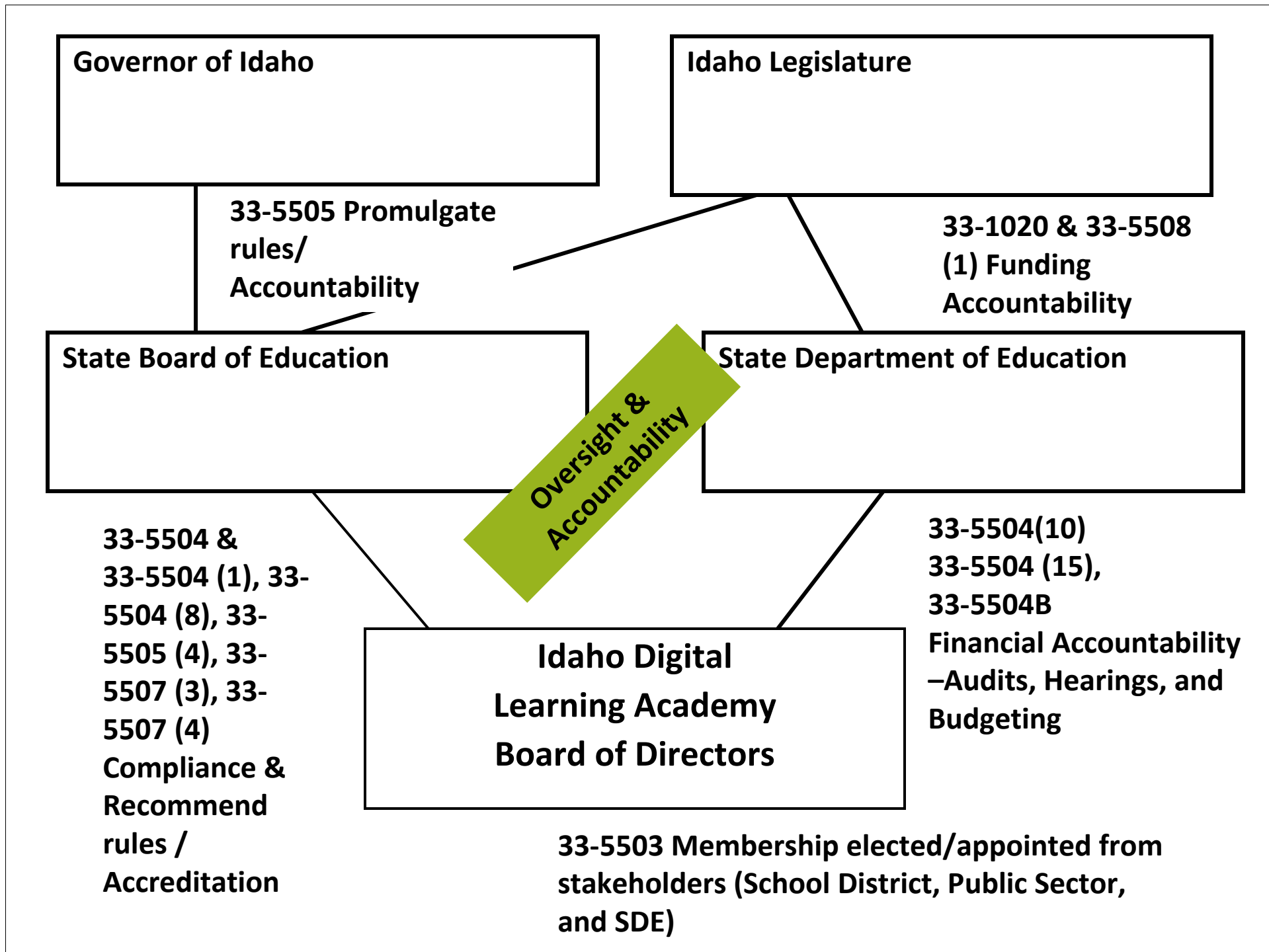
DISTRICTS...

STATE...



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IDLA Identification of Organizational Goals & Data Evaluation (Inception – Current)

Needs Assessment

- **Idaho School Administrators Identified**
 - » Student Course Needs
 - » Equity
 - » Access
- **Idaho School Administrators Feedback**
 - » Soft Data
 - » Face to Face Collection
 - » IASA Board
 - » IDLA Board
- **Measure of Success**
 - » Sustainability
 - » Growth and Enrollment



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IDLA Identification of Organizational Goals & Data Evaluation (Inception – Current)

Needs Assessment (Internal & External)

- **Student**
 - » Completion Rate
 - » Student Satisfaction
 - » Student Profile
 - » Student Surveys
- **Teacher**
 - » Teacher Rubric
 - » Student Completion Rate
- **Principal**
 - » Principal Rubric
 - » Teacher Success
 - » Principal Meetings



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IDLA Identification of Organizational Goals & Data Evaluation (Inception – Current)

Needs Assessment (Internal & External)

- **Regional Coordinator**
 - » Soft Data, Face to Face Collection
 - » Regional Coordinator Meetings
- **Site Coordinator / Building Principal**
 - » Enrollments/Implementation
 - » Administrative Survey
 - » Soft Data, Face to Face Collection
- **IDLA Board**
 - » Fiscal Accountability
 - » Strategic Planning
 - » Enrollment and Growth



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IDAHO DIGITAL LEARNING ACADEMY

**21st Century Innovation:
Serving Idaho's Students,
School Districts, and the State**

strategic plan
2009 - 2012



***Driven by
Idaho
Stakeholders***



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IDLA Identification of Organizational Goals & Data Evaluation (Inception – Current)

Needs Assessment (Internal & External)

– External Stakeholders

- » Soft Data, Face to Face Collection
- » Strategic Planning Activity
- » Enrollment and Growth
- » Fiscal Accountability
- » Student Completion Rate
- » Student/Teacher Correlation-Framework



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***“Errors Using Inadequate Data Are Much Less
Than Using No Data At All”***

***“Inadequate data driven solutions of yesterday
are the problems of today”***





VHS Program Evaluation

Liz Pape
Virtual High School Global Consortium
www.goVHS.org

[offer more](#)

[share more](#)

[learn more](#)

VHS Grant ('96-'01)

Goal: create a national set of regional hubs of schools offering online courses

Specific objective: "level the playing field" for access to quality HS courses

Activities and services:

- ▣ *teacher training*
- ▣ *course development and delivery*

VHS Grant ('96-'01)

Questions to be addressed: what training, services and support need to be provided for student success in online courses?

Desired indicators of success/measures:

- ▣ *numbers of teachers in consortium*
- ▣ *numbers of schools in consortium*
- ▣ *numbers of courses developed*

Annual Evaluation Essential Questions

SRI conducted annual program evaluations focused on:

- ☐ **Is VHS feasible for schools?**
- ☐ **Does VHS offer participation benefits to schools, teachers and students?**
- ☐ **Are schools, teachers and students satisfied with the services provided by VHS?**
- ☐ **Is the rigor and quality of VHS courses and professional development sufficiently high?**
- ☐ **Has VHS expanded teaching and learning opportunities for schools, teachers and students?**

VHS Non-Profit ('01-present)

Development of:

- ▣ *Mission*
- ▣ *Vision*
- ▣ *Beliefs*
- ▣ *Financial/Business Model*

in student centered, cohort-based online courses

educational opportunities should not be limited by barriers of time, space, or lack of qualified instructors

VHS believes...

online teaching should supplement, not supplant, traditional education

that a collaborative model allows for sharing of resources to improve the quality of education for all students in the schools, not just VHS students

VHS Mission

to develop and deliver standards-based, student-centered online courses, to expand students' educational opportunities and 21st century skills, and to offer professional development to teachers to expand the scope and depth of their instructional skills.

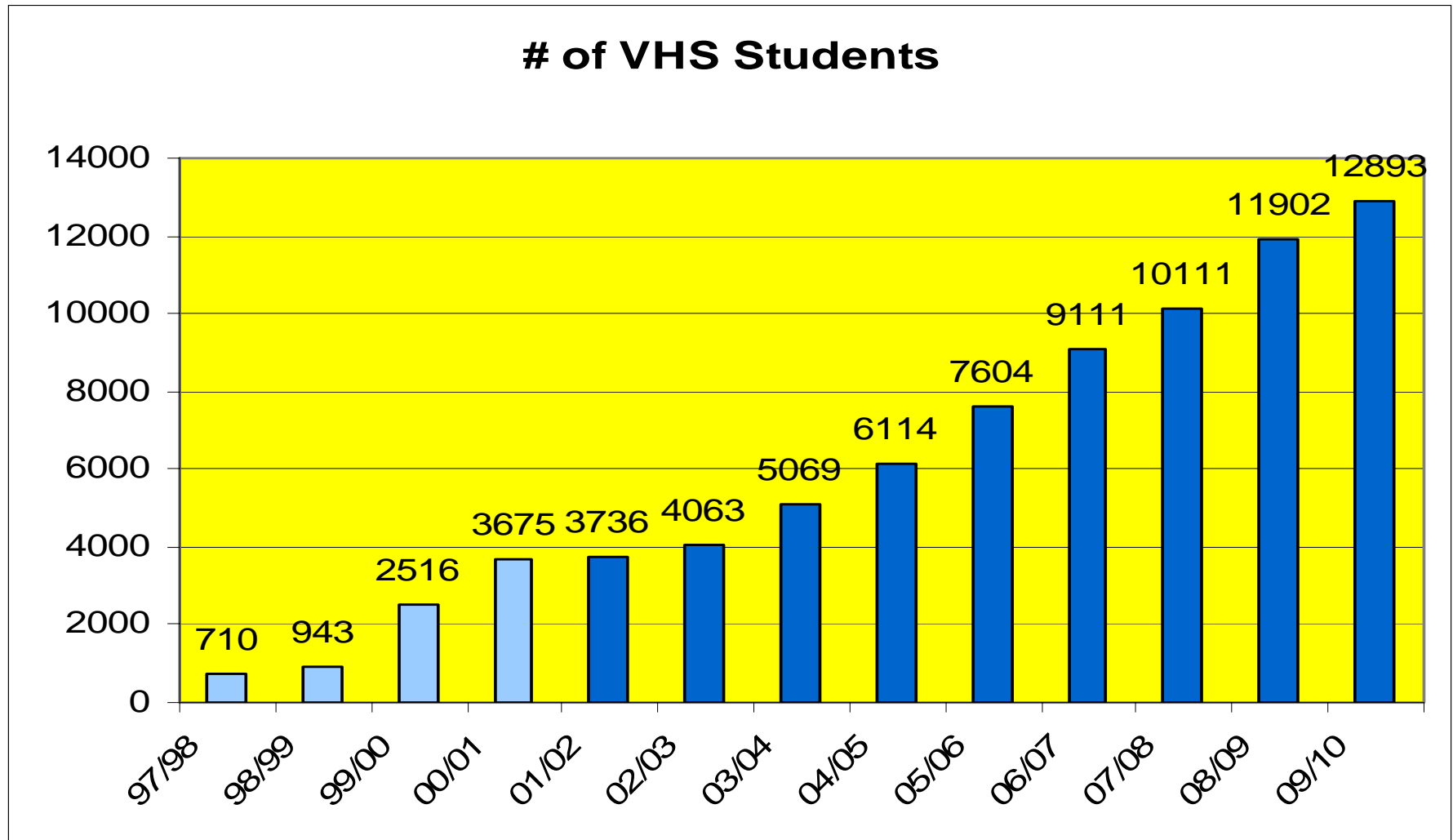
VHS Program Evaluation

- What is measured?
 - Mission statement
 - Annual goals
 - Strategic Plan
- How is it measured?
 - Hard data points
 - Self-reported data
- When?
 - Continuous improvement loop

Goals – the start point

- Program growth goals:
 - ▣ students,
 - ▣ courses,
 - ▣ schools
- Quality goals:
 - ▣ course quality,
 - ▣ membership services,
 - ▣ preparation of teachers

Growth Goal Example: Number of Students



Program effectiveness



- Course Quality
- Professional Development
- Program Services

Hard Data and Survey Data: An Integrated Approach

- **Developed hard-data Quality Benchmark Indicators:**
 - ▣ **Course quality**
 - AP exam pass and take rates
 - Course completion rates
 - Credit recovery rates
 - ▣ **Teaching quality**
 - PD pass rate
 - Online teaching skills mastery rate
 - Online teaching skills remediation percentage
 - ▣ **Program services quality**
 - Membership retention rate
 - Course seat utilization rate
 - Member seat utilization rate

Hard Data and Survey Data: An Integrated Approach

- Developed surveys to answer essential questions from grant evaluation:
 - ▣ Superintendents
 - ▣ Principals
 - ▣ Teachers
 - ▣ Site Coordinators
 - ▣ Student end-of-course

Course Quality Measures –Data & Survey Points

- AP exam pass rate: 62% /43% (nat'l: 60%/35%)
- AP exam take rate: 78%
- Course completion rate: 80%
- Credit recovery rate: 81%

Course Quality Measures –Data & Survey Points

□ Satisfaction with VHS course quality:

- 92% superintendents
- 100% principals
- 98% Site Coordinators

□ Course features, teacher satisfaction:

- 92%: engagement in course work
- 78%: collaborative learning
- 97%: 21st century skills development



THANK YOU

VHS Program Evaluations:

<http://www.govhs.org/Pages/WhyVHS-Home>

Click on Results

Liz Pape

LPape@goVHS.org



Virtual High School
Global Consortium
www.goVHS.org

Small Group Work Session 1

- **What do we want to know?**
 - What are your program's goals and objectives? What do you want to evaluate?



Handout:

A basic logic model for setting up an evaluation (Susan Lowes & Tom Clark)

Presentation 2

- Defining and measuring outcomes
- Tom Clark, TA Consulting
- Susan Lowes, Teachers College,
Columbia University





Defining Measurable Outcomes

Tom Clark, PhD, TA Consulting

Defining Measurable Outcomes

- **What is an outcome?**
- A desired change resulting from participation in a program
 - *A change in behavior, attitudes, skills, knowledge, life condition, or status*
- Usually refers to a change in an individual participant
- Can be short, intermediate or long term in nature

* www.shapingoutcomes.org

Defining Measurable Outcomes

- **Examples of outcomes**
- Students demonstrate improved understanding of Algebra concepts (a change in knowledge & skills)
- Remedial students complete their courses more often (behavior)
- College students stop smoking (life condition)
- School leavers earn a high school diploma (status)



Defining Measurable Outcomes

- A good outcome is measurable
- It reflects a concrete, observable demonstration of a change resulting from participation in a program
- A good outcome can be tested
- Tools & data are available to measure whether the outcome was attained
- *Otherwise, you may be unable to determine if it was attained – and to fully demonstrate program impact*



Defining Measurable Outcomes

- **Outcome Indicators**
- How can we measure whether an outcome was attained?
- By developing **outcomes indicators** that measure the extent to which the desired outcomes occurred
- There are often many ways to measure whether an outcome was attained.



Defining Measurable Outcomes

- **Outcome Indicators specify:**
 - Who (group of people for whom the outcome is desired)
 - What (their intended outcome)
 - Target or benchmark (a count and/or percent of people that you expect to attained the desired outcome due to program participation)
- *Example: Graduation rates of program students will increase 10% compared to the prior year.*





Selecting Evaluation Methods and Formulating Evaluation Questions

Susan Lowes, PhD,
Teachers College, Columbia University

Questions to be addressed

- All the questions you have about how or why an intervention or program works
- Your evaluator will map these (as well as your objectives) to your data and your data-collection instruments
- Sometimes you ask a question and you realize it should actually be an objective
- Entire process is iterative



Methods and instruments

- Passively collected data
 - Formal assessment/test results
 - Attendance records
 - Online data or usage logs
- Actively collected data
 - Self-report (surveys, logs, diaries, interviews)
 - Direct assessments: pre/post tests, embedded assessments, portfolios, student work, observations, etc.
 - Indirect assessments: drawings, freelisting, pile sorts



Small Group Work Session 2

- **How do we measure success?**
 - What questions would you ask, to decide if the program (activities & services) met the objective?
 - In measuring your success, what outcomes would you include?
(changes in knowledge, skills, attitudes, condition, status)

Handouts:

Outcomes-based quality measures
(Liz Pape)



Presentation 3

- Integrating Research & Evaluation
- Leanna Archambault, Arizona State University
- Rick Ferdig, Kent State University & Ferdig Technologies



Working with Academic Researchers

Leanna Archambault
Assistant Professor
Arizona State University

Moving Forward

- While research in K-12 online education is continues to grow, the vast majority of that literature is based upon the experiences or opinions of practitioners. Scholars have begun calling for more rigorous examination.
- Because research in the field is a relatively new, burgeoning field, working together with researchers moves us forward.

Overlapping Needs


- Important to recognize that researchers are interested in many of the same goals as K-12 administrators/practitioners: to identify promising practices, maximize and document strengths as well as areas/strategies for improvement.
- Researchers also want to apply their findings to their teaching. This assists the field by helping to create more qualified online teacher candidates.

Suggestions

- Researchers must complete their own university review process (Institutional Review Board) to ensure safeguards. Some online programs have identified their own similar process. However, university IRB is very detailed.
- It can be confusing for a researcher to know who to contact in an organization to gain permission. Identifying a staff person to interface with researchers would be ideal.

Suggestions

- Online programs should distinguish who is requesting to work with them for the purposes of conducting research. If it is a doctoral student, then it would be beneficially to be in contact with the student's advisor.
- Communicate program needs to researchers. Often scholars' interests converge/coincide with those of the virtual school.
- Successful partnerships can lead to grant opportunities that if funded stand to benefit both parties and most importantly, program quality.



Rick Ferdig, Ph.D.
RCET, Kent State University
rferdig@gmail.com; <http://www.ferdig.com>

Combining Research with Evaluation



Virtual School Symposium 2010

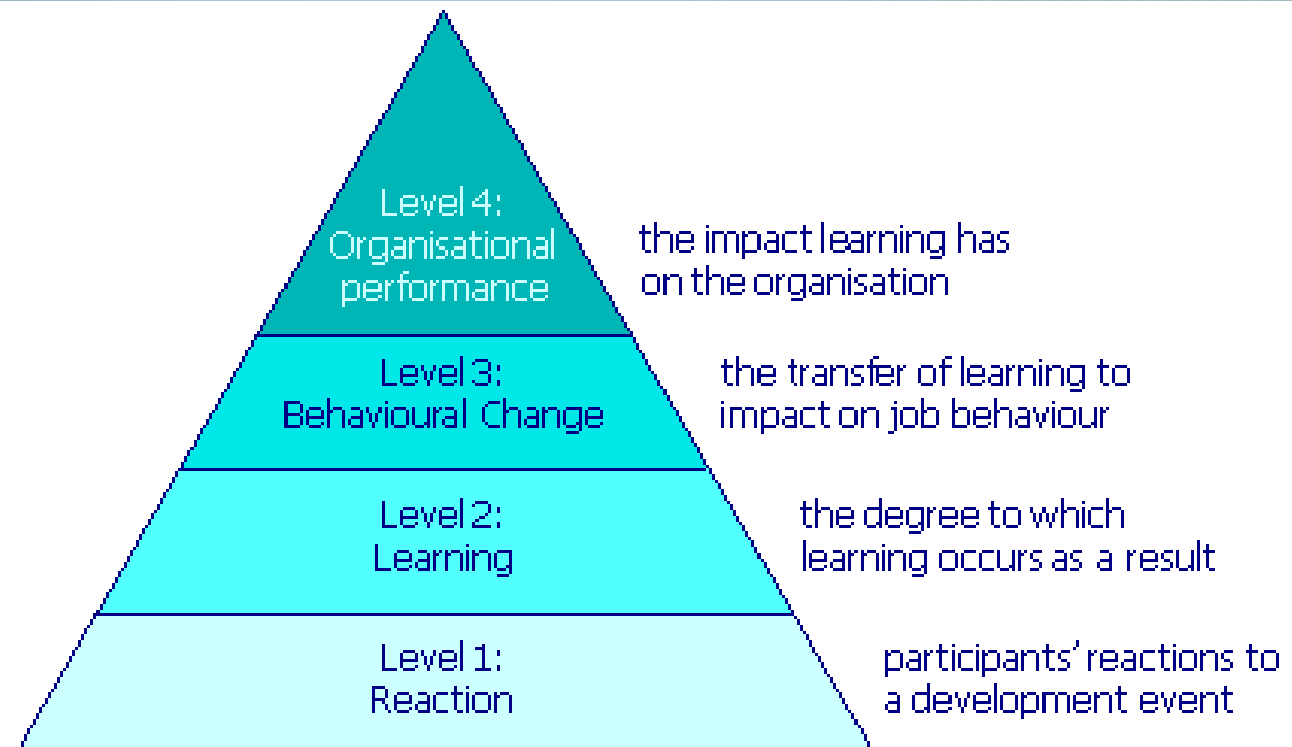
Evaluation

- Design
 - Formative
 - Summative
- Purpose
 - Meet goals?
 - What happened?



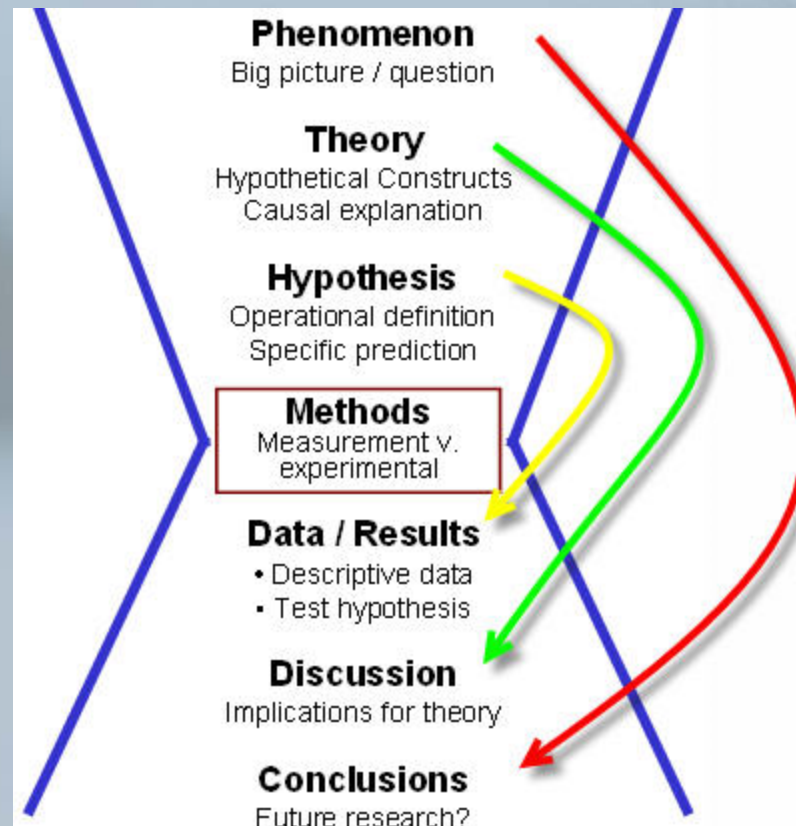
Evaluation

Kirkpatrick



Source: Institute of Employment Studies (IES)

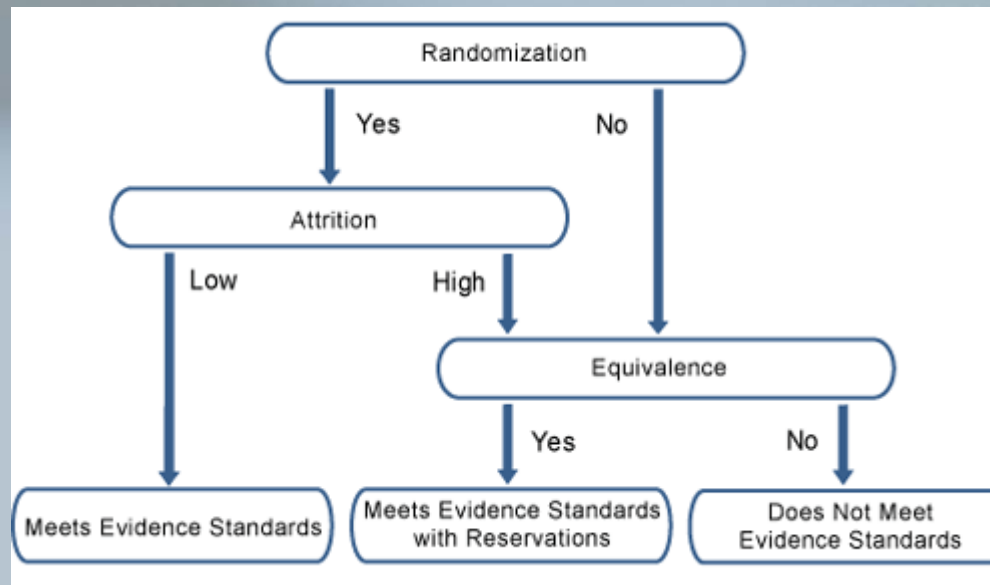
Research Design



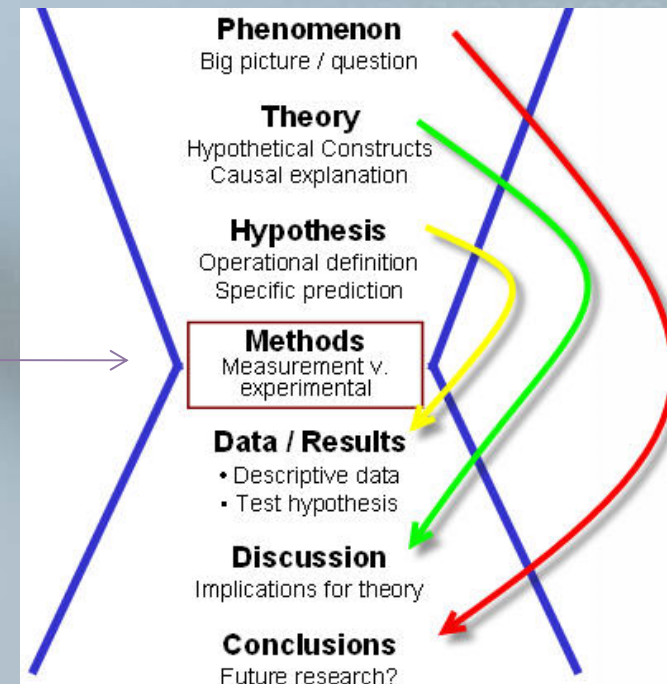
<http://www.uic.edu/classes/psych/psych242/Week2.html>

Gold Standard

- <http://ies.ed.gov/ncee/wwc/>



Challenge



What's new?

Example

- Teacher Professional Development
- Evaluation:
 - Teacher Practice
 - Improve Student Outcomes
- Research
 - What do we know about PD for K-12 Online Teachers?



Small Group Work Session 3

- **Choose a table topic:**
 - Finding/working with an evaluator
 - Sharing findings with stakeholders
 - Working with academic researchers
 - Other topics that participants identify

Handouts:

- *How to work with academic researchers*
(Rick Ferdig)
- *Setting up an evaluation* (Tom Clark)



Thank You!



Leanne Arch-ambault

leanna.archambault@asu.edu

Cheryl
Charlton

cheryl.charlton@idla.k12.id.us

Tom Clark

tom@taconsulting.net

Rick Ferdig

rferdig@gmail.com

Susan Lowes

susanl@ilt.columbia.edu

Liz Pape

lpape@govhs.org